

ABSTRACT OF THE DISCLOSURE

A method for permitting encrypted communications between two stations which are operable with encryption algorithms that accept encryption keys having work factors with different values, by: in a first determining step, determining the lower one of the different values; providing an initial encryption key having a first work factor value; comparing the first work factor value with the lower one of the work factors determined in the determining step; when, in the comparing step, the first work factor value is greater than the lower one of the work factor values determined in the determining step, performing the following steps: performing a first hash function on the initial encryption key to produce a first output, and deriving from the first output a first intermediate key having a work factor value not greater than the lower one of the different work factor values determined in the determining step; performing the first hash function on the first intermediate key to produce a second output, and deriving from the second output a final encryption key having a work factor value not greater than the lower one of the different work factor values determined in the determining step; and using the final encryption key to encrypt communications between the two stations; and when, in the comparing step, the first work factor value is found to not be greater than the lower one of the work factor values determined in the determining step, using the initial encryption key to encrypt communications between the two stations.